

BPA Heat Pump and VRF Specification*

Effective 4/1/2017

Measures: Heat Pump Upgrade (BPA Qualified) and Heat Pump Conversions (BPA Qualified)

Equipment Type	Size Category	Heating Section Type	Subcategory	Tier 1	Tier 2	Test Procedure
Air Cooled (Cooling Mode)	<65,000 Btu/h	All	Split System	15 SEER	16 SEER	AHRI 210/240
			Single Package	15 SEER	16 SEER	
	≥65,000 and <135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	12.2 IEER	13.6 IEER	AHRI 340/360
		All Other	Split System and Single Package	12 IEER	13.4 IEER	
	≥135,000 and <240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.6 IEER	N/A	
		All Other	Split System and Single Package	11.4 IEER	N/A	
	≥240,000 and <760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.6 IEER	N/A	
		All Other	Split System and Single Package	10.4 IEER	N/A	
Air Cooled, (Heating Mode)	<65,000 Btu/h	-	Split System	8.5 HSPF	9 HSPF	AHRI 210/240
		-	Single Package	8.2 HSPF	8.2 HSPF	
	≥65,000 and <135,000 Btu/h	-	47°F db/43°F wb Outdoor Air	3.4 COP	N/A	AHRI 340/360
		-	17°F db/15°F wb Outdoor Air	2.4 COP	N/A	
	≥135,000 and <240,000 Btu/h	-	47°F db/43°F wb Outdoor Air	3.2 COP	N/A	
		-	17°F db/15°F wb Outdoor Air	2.1 COP	N/A	
Water Source (Cooling Mode)	<135,000 Btu/h	All	86° Entering Water	14 EER	N/A	ISO-13256-1
Water Source (Heating Mode)	<135,000 Btu/h	-	68° Entering Water	4.6 COP	N/A	ISO-13256-1

SEER—Seasonal Energy Efficiency Ratio

EER—Energy Efficiency Ratio

HSPF— Heating Seasonal Performance Factor

wb—Wet Bulb

IEER—Integrated Energy Efficiency Ratio

COP—Coefficient of Performance

db—Dry Bulb



Measure: Variable Refrigerant Flow System (BPA Qualified)**Variable Refrigerant Flow Multisplit Air-conditioner Specification**

Equipment Type	Size Category	Heating Section Type	Subcategory	Tier 1	Tier 2	Test Procedure
VRF Air Cooled (Cooling Mode)	<65,000 Btu/h	All	Multisplit System	15 SEER	16 SEER	AHRI 1230
	≥65,000 and <135,000 Btu/h	Electric Resistance (or None)	Multisplit System	14.9 IEER	N/A	
	≥135,000 and <240,000 Btu/h	Electric Resistance (or None)	Multisplit System	14.4 IEER	N/A	
	≥240,000 Btu/h	Electric Resistance (or None)	Multisplit System	13 IEER	N/A	

Variable Refrigerant Flow Multisplit Heat Pump Specification

Equipment Type	Size Category	Heating Section Type	Subcategory	Tier 1	Tier 2	Test Procedure
VRF Air Cooled (Cooling Mode)	<65,000 Btu/h	All	Multisplit System	15 SEER	16 SEER	AHRI 1230
	≥65,000 and <135,000 Btu/h	Electric Resistance (or None)	Multisplit System	14.2 IEER	N/A	
			Multisplit System with Heat Recovery	14 IEER	N/A	
	≥135,000 and <240,000 Btu/h	Electric Resistance (or None)	Multisplit System	13.7 IEER	N/A	
			Multisplit System with Heat Recovery	13.5 IEER	N/A	
	≥240,000 Btu/h	Electric Resistance (or None)	Multisplit System	12.5 IEER	N/A	
			Multisplit System with Heat Recovery	12.3 IEER	N/A	
Air Cooled, (Heating Mode)	<65,000 Btu/h	-	Multisplit System	8.5 HSPF	9.0 HSPF	
	≥65,000 and <135,000 Btu/h	-	47°F db/43°F wb Outdoor Air	3.4 COP	N/A	
			17°F db/15°F wb Outdoor Air	2.4 COP	N/A	
	≥135,000 Btu/h	-	47°F db/43°F wb Outdoor Air	3.2 COP	N/A	
			17°F db/15°F wb Outdoor Air	2.1 COP	N/A	
Water Source (Cooling Mode)	<135,000 Btu/h	All	Multisplit System 86° Entering Water	14 EER	N/A	
			Multisplit System with Heat Recovery 86° Entering Water	13.8 EER	N/A	
Water Source (Heating Mode)	<135,000 Btu/h	-	68° Entering Water	4.6 COP	N/A	

SEER—Seasonal Energy Efficiency Ratio

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HSPF— Heating Seasonal Performance Factor

wb—Wet Bulb

IEER—Integrated Energy Efficiency Ratio

COP—Coefficient of Performance

db—Dry Bulb



*The BPA Heat Pump and VRF Specification is based on the Consortium for Energy Efficiency (CEE) Commercial Unitary Air-conditioning and Heat Pumps Specification, dated January 12, 2016. BPA is a member of the CEE High Efficiency Commercial Unitary Air-conditioning and Heat Pump Initiative. As part of this Initiative, BPA has adopted CEE's Tier 1 and Tier 2 convention, and has adopted a part-load metric in order to focus on energy efficiency savings rather than peak energy savings. More information about CEE can be found at <http://www.cee1.org/>

